Indiana State Department of Health
Epidemiology Resource Center

Quick Facts

About Q Fever

What is Q Fever?

Q fever is a disease caused by the bacteria *Coxiella burnetii*. The disease can range from an infection so mild as to not be recognized to a severe chronic infection. It some cases it may be fatal. The bacteria can cause a variety of clinical presentations including pneumonia, heart problems, liver abnormalities, and bone infections. It can also cause neurological problems such as encephalitis, meningitis, or dementia. The disease occurs worldwide.

How is Q fever spread?

Q fever is a disease of animals; the primary reservoirs are sheep, goats, and cattle. The disease-causing bacteria, is excreted in milk, urine, and feces of infected animals. It also is shed in birth products of infected animals. Transmission to humans usually occurs from inhaling the organism from contaminated environments including barn yard dust. Consumption of raw contaminated milk has also been shown to be a route of infection. The bacteria is very resistant to heat, drying, and common disinfectants. Since very few organisms are required to cause disease in humans, this bacteria is a candidate for use as a bioterrorism agent. This disease is a risk to farmers, livestock handlers, workers in meat packing plants, and others with animal related occupations.

Who is at risk for Q fever?

People who have occupational exposure to animals that have the bacteria are at risk for Q fever. These individuals are usually veterinarians, meat processing plant workers, sheep and dairy farm workers, livestock farmers, and researchers at facilities housing sheep. Individuals that drink unpasteurized (raw) milk are also at increased risk.

How do I know if I have Q fever?

The incubation period (time from exposure to onset of illness) is around 2 to 3 weeks. Approximately one half of the individuals infected show clinical disease.

Symptoms of Q fever are:

- High fever (104 – 105 F)
- Chills, sweats
- Intense headache
- Fatigue with tenderness or pain in the muscles and joints
- Non-productive cough, sore throat
- Nausea, vomiting, and diarrhea

Often the infection develops into pneumonia and sometimes hepatitis. Approximately 1-2 percent of individuals with acute disease will die without treatment. Some will develop chronic Q fever. Individuals with pre-existing heart valve disease or those with other immunosuppressive conditions are at higher risk. The mortality rate in the chronically infected can be higher.

If you are concerned that you may have Q fever see a health care provider immediately.

How can Q fever be treated?

Q fever is treated with antibiotics. Doxycycline is preferred for the acute form of the disease. The chronic form is treated with a combination of both Doxycycline and quinolones. Individuals whose heart valves become infected with Q fever may need surgery to replace the valves. There is not currently a vaccine against this disease in the United States.

How is Q fever prevented?

Drink only pasteurized milk. Individuals who are at highest exposure (meat processing, veterinarians, sheep and dairy workers, livestock farmers, and researches using livestock especially sheep) should be aware of the disease. Since sheep and goats tend to shed the organism more with birth products; all placenta, birth products, fetal membranes, and aborted fetuses should be disposed of in a manner to prevent environmental (soil) contamination.

All information presented is intended for public use. For more information, please refer to:

http://www.cdc.gov/qfever/

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